ORIGINAL

Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-band	)	IB Docket No. 96-132

COMMENTS OF L/Q LICENSEE, INC.
AND OPPOSITION TO PROPOSED MODIFICATION OF LICENSE

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SUMMARY

The Commission should follow its historic "open skies" policy and adopt rules permitting multiple applicants for the lower L-band spectrum. The Commission's proposal to reserve the lower L-band for AMSC Subsidiary Corporation is inconsistent with this long-standing policy and the public interest. The Commission's reasons for this proposal are flawed. A Commission license does not guarantee any licensee sufficient spectrum for its business plan, and so, AMSC had no expectation to any specific amount. Furthermore, the fact that AMSC has one satellite launched would not necessarily result in use of the spectrum expeditiously as the Commission assumes.

In contrast, permitting multiple applicants for use of this spectrum would serve the public interest. AMSC's application and system are now nearly a decade old. Applicants proposing new satellite technology may be able to share the spectrum and/or use the spectrum globally to promote competition and better service for U.S. consumers.

In any event, a modification to AMSC's authorization cannot be lawfully granted in this proceeding. The Commission has not yet fulfilled the conditions precedent to lifting the freeze on applications for the lower L-band, and so, consideration of AMSC's application, which was filed during the freeze, is not proper. Moreover, Section 316 of the Communications Act of 1934, as amended, does not apply in this situation to allow the Commission to authorize modification of an individual license to add a new allocation.

The rules adopted in this proceeding must include a rule requiring licensees to protect the Globalstar™ system from harmful interference. L/Q Licensee, Inc., has previously indicated that there is a potential for harmful interference from AMSC's operations in the lower L-band. Initially, any applicant for operation in the lower L-band should be required to submit a written application which can be evaluated for potential interference. However, because LQL has rights of precedence, the Commission must ensure that any authorization granted for lower L-band operations imposes a requirement to protect the Globalstar™ system from harmful interference.

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Pursuant to Section 1.415 of the Commission's Rules, L/Q Licensee, Inc. (LQL), by its undersigned attorneys, submits the following comments on the Commission's proposed licensing rules and policies for frequencies allocated to the Mobile-Satellite Service (MSS) in the 1545-1559/1646.5-1660.5 MHz ("upper L-band") and 1525-1530/1530-1544/1626.5-1645.5 MHz ("lower L-band").[1] LQL also opposes the Commission's proposal in the NPRM to modify AMSC Subsidiary Corporation's existing MSS authority to include operation in the lower L-band. See NPRM, ¶¶ 17, 19.

LQL is the licensee of the Globalstar™ low-earth orbit MSS Above 1 GHz system.[2] In 1993, the predecessor of LQL's parent and the then applicant for the

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[1] See Notice of Proposed Rulemaking, FCC 96-259 (released June 18, 1996) ("NPRM").

[2] See Loral/Qualcomm Partnership, L.P., 10 FCC Rcd 2333 (Int'l Bur. 1995), aff'd, FCC 96-279 (released June 27, 1996). This authorization was issued to LQL's parent corporation, and transferred to LQL pursuant to Commission approval (File No. 148-SAT-AL-95).

Globalstar™ system license, Loral Qualcomm Satellite Services, Inc. (LQSS),[3] filed objections to AMSC's attempts to annex the lower L-band for its domestic, geostationary MSS system[4] and the Commission's Public Notice "accepting" AMSC's application for filing.[5] In these pleadings, LQSS expressed an interest in use of the lower L-band for MSS. Any such opportunity would be effectively foreclosed if the Commission adopts the rules and policies in the NPRM. Accordingly, LQL has a substantial interest in this proceeding.

I. THE PROPOSED RULES AND POLICIES ARE CONTRARY TO THE PUBLIC INTEREST AND TO THE COMMISSION'S EXISTING POLICIES GOVERNING U.S. SATELLITE SYSTEMS.

In the NPRM, the Commission proposes to reserve all 38 MHz of spectrum in the lower L-band for assignment to AMSC's geostationary MSS system on a "first priority" basis. AMSC is already the monopoly U.S. licensee of the 28 MHz of spectrum designated as the upper L-band.[6] The goal of the Commission's

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[3] In March 1994, the ownership interests in the Globalstar™ applicant were reorganized as a partnership, and LQP became the applicant. See Amendment to Globalstar System Application (filed Apr. 21, 1994).

[4] See Opposition of Loral Qualcomm Satellite Services, Inc. (filed Dec. 3, 1993).

[5] See Objection to Procedure and Request for Clarification and Proper Establishment of Cut-Off Date (filed Dec. 1, 1993).

[6] See Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for and Establish Rules Pertaining to the Use of Radio Frequencies in the Land Mobile-Satellite Service (Memorandum Opinion Order and Authorization, 4 FCC Rcd 5041 (1989) (subsequent history omitted) ("AMSC Authorization").

proposal is to ensure that AMSC will receive at least 20 MHz of useable spectrum for its system as a result of the international coordination process for the 66 MHz of L-band spectrum. The Commission attempts to rationalize giving spectrum away on a monopoly basis by citing to difficulties encountered in coordinating L-band spectrum with Inmarsat, Canada, Mexico, and the Russian Federation, the perception that AMSC can use the spectrum "expeditiously," and "doubts" whether there is sufficient spectrum available for another U.S. system operating in the bands. NPRM, ¶¶ 9-11.

The proposals in the NPRM are inconsistent with the Commission's satellite licensing policies and the public interest. Accordingly, LQL recommends that the Commission abandon its proposals, and, instead, open the licensing process for the lower L-band to applications by entities in addition to AMSC.

In adopting rules governing satellite services and in granting space station authorizations, the Commission has historically adhered to an "open skies" policy based on its conclusion that a competitive marketplace operates more efficiently than a monopolistic one.[7] Thus, the Commission has adopted licensing policies to ensure multiple licensees and competitive service for the Above 1 GHz Mobile-Satellite Service,[8] the Non-Voice, Non-Geostationary Mobile-Satellite Service,[9] the

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[7] Competitive Common Carrier Services, 85 FCC 2d 1, 2 (1980).

[8] See Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, 9 FCC Rcd 5936, 5954-57 (1994).

Radio-Determination Satellite Service,[10] the Direct Broadcast Satellite Service,[11] the Domestic Fixed-Satellite Service,[12] and the International Satellite Service.[13] The Commission has also based recently-adopted and proposed changes to its satellite regulatory policies on the desire to encourage competition in the domestic and international markets by both U.S.[14] and non-U.S.[15] satellite systems.

As the Commission has repeatedly pointed out, competition serves the public interest by giving consumers choice, which allows them

> to influence the types of services available simply by frequenting one service provider over another. This market pressure not only encourages service providers to be responsive to customer needs, but also encourages them to lower the price of their services in order to obtain a larger share of the market and, therefore, to maximize

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[9] See Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Non-Voice, Non-Geostationary Mobile-Satellite Service, 74 RR 2d 183, 184 (1993).

[10] See Amendment to the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to, a Radio-Determination Satellite Service, 60 RR 2d 298, 301-02 (1986).

[11] See Revision of the Rules and Policies For the Direct Broadcast Satellite Service, 1 CR 928, 937-47 (1995).

[12] See Domestic Communications Satellite Facilities, 35 FCC 2d 844, 847-48 (1972), on recon., 38 FCC 2d 665 (1972).

[13] See Establishment of Satellite Systems Providing International Communications, 101 FCC 2d 1046, 1163 (1985).

[14] See Amendment of the Commission's Regulatory Policies Governing Domestic Fixed Satellites and Separate International Satellite Systems, 11 FCC Rcd 2429 (1995).

[15] Amendment of the Commission's Regulatory Policies to Allow Non-U.S.-Licensed Space Stations to Provide Domestic and International Satellite Services in the United States, FCC 96-210 (released May 14, 1996).

> profits and to offer service in the most efficient and economical manner. The end result of this process is reduced rates and service more responsive to customer needs.[16]

With the incentive of competition, the Commission has initiated, processed, and licensed applicants in two new satellite services within the last three years.[17] At least one of these new licensees has already commenced operation,[18] and several are scheduled to commence operation within the next two years.[19]

Despite this historic and consistent policy of promoting competition, the Commission now proposes to authorize monopoly service by AMSC for 38 MHz of spectrum in the lower L-band. But, no valid reason has been offered for extension of AMSC's monopoly in the L-band.

First, the Commission claims that it wants to ensure that, after completion of the international coordination process, AMSC has access to about 20 MHz of spectrum, which the Commission claims is needed for a viable MSS system. NPRM, ¶ 10. However, the Commission concedes that grant of a Commission license does not guarantee access to sufficient spectrum to satisfy the licensee's

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[16] Establishment of Satellite Systems Providing International Communications, 101 FCC 2d at 1065.

[17] See Non-Voice, Non-Geostationary Mobile-Satellite Service, 74 RR 2d at 183; Mobile-Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, 9 FCC Rcd at 5936.

[18] See "Orbcomm's First 2 Satellites Deployed; AMSC Launch Delayed 2 Days," Satellite Week, Vol. 17, No. 5 (Apr. 10, 1995), at 3.

[19] Globalstar™ is scheduled to commence initial service in 1998. Motorola has stated that its Iridium system will be operational in 1998. See Minor Amendment of Motorola Satellite Communications, Inc., Table R-4 (Rev. 1) (Nov. 15, 1994).

business plan, and, therefore, AMSC has no expectation of obtaining rights to 20 MHz. NPRM, ¶ 14. The Commission expressed the same caveat when it issued AMSC's initial authorization.[20] Moreover, it has offered no projection that AMSC has present or future requirements to justify holding 20 MHz for its system alone. And, it has found in the MSS Above 1 GHz service that the TDMA system can be viable with 5.15 MHz and that four CDMA systems can operate by sharing 27.85 MHz.[21] Therefore, its 20 MHz rationale is without foundation.

Second, one week after it issued the NPRM, the Commission announced that it had successfully reached a coordination agreement for the upper and lower L-band.[22] According to the Commission, "[s]pectrum allocations to individual operators will be reviewed annually on the basis of actual usage and short-term projections of future need."[23] Through this agreement, the United States appears to have obtained a dynamic allocation in the upper and lower L-band which will depend upon actual traffic. But, the Commission has proposed to forgo any

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[20] See Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite Service, 2 FCC Rcd 485, 486 (1987) ("LMSS Rules Order") (subsequent history omitted) (deciding to license only one domestic MSS system "[a]lthough this Commission has never guaranteed the economic viability of a new service").

[21] See Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, 9 FCC Rcd at 5954-57.

[22] Report No. IN 96-16, "FCC Hails Historic Agreement on International Satellite Coordination" (released June 25, 1996).

[23] Id.

competitive incentive for AMSC to maintain the 20 MHz of spectrum for its system and, ultimately, for U.S. subscribers.

Third, the Commission claims that AMSC is in the best position to provide MSS to the public "expeditiously." NPRM, ¶ 13. However, the Commission has made no connection between expediting service and adding frequencies to the system. For example, there is no suggestion in the NPRM that AMSC is already using 20 MHz, or that its current or projected subscriber base would require 20 MHz, and, therefore, that AMSC could use the additional spectrum before another licensed system could become operational.

In this regard, it should be noted that the Commission imposed a milestone schedule on the construction and launch of AMSC's three authorized satellites in 1989, with the goal of ensuring that AMSC would proceed "in a timely manner." Launch of AMSC's first satellite, however, occurred two years behind schedule.[24] Launch of AMSC-2 and AMSC-3 are already two years beyond the original milestone dates.[25]

Even if AMSC were to use up to 20 MHz "expeditiously," the Commission must consider the possibility that another U.S. satellite system may be able to use the spectrum globally, as opposed to AMSC's strictly regional service, or that

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[24] Compare AMSC Authorization, 4 FCC Rcd at 6060 (launch milestone for AMSC-1 set as July 1993) with "Mobile Satellite," Satellite Week, Vol. 17, No. 16 (Apr. 17, 1995), at 11 (reporting launch of AMSC-1 on April 7, 1995).

[25] See AMSC Authorization, 4 FCC Rcd at 6060 (launch milestone for AMSC-2 and AMSC-3 set as July 1994).

another satellite operator would be willing to use the spectrum on a non-interference basis in the North American region because technology has advanced beyond AMSC's now-outdated technology.[26] In response to these concerns, the Commission merely states the obvious that "it is international spectrum demands that limit L-band spectrum," that "AMSC's system is not designed to provide worldwide coverage," and that the Commission continues to believe that AMSC's system "will provide useful services to the U.S. population and will provide competition to other MSS systems serving the domestic market."[27] NPRM ¶ 20. None of these statements answers the critical question: why would it be in the public interest to preclude applications for systems which could provide global or additional coverage in the lower L-band?

Therefore, none of the Commission's rationales in the NPRM justifies a departure from the Commission's historic "open skies" policy and denying the U.S. public the benefits of competition in the lower L-band. The entire explanation in the NPRM appears to be nothing more than an arbitrary device to reach a result which will allow the Commission to avoid the "delay, expense and arduous

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[26] Cf. Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2485.5-2500 MHz Frequency Bands, 2 CR 673, 681 (1996) (FCC declines to preclude licensing GSO satellite systems in MSS Above 1 GHz band, but would license a GSO satellite on a non-interference basis to LEO systems).

[27] The Commission claims that assignment of this spectrum to AMSC would help promote MSS service through geostationary satellites. NPRM, ¶ 12. As the Commission is well aware, AMSC does not have a monopoly on geostationary satellite technology.

choices" associated with accepting applications in competition to AMSC.[28] Taking action to avoid such burdens does not constitute reasoned decisionmaking.[29]

Accordingly, the Commission should -- as it did 15 years ago in the context of cellular service -- adopt a competitive approach to the lower L-band rather than a monopoly model. Initially, the Commission proposed to license one cellular system per market on grounds similar to those articulated here, i.e., "because a cellular system is technically complex, expensive and requires a large amount of spectrum to make it economically viable, competing systems within a 40 MHz allocation would not be feasible."[30] However, based on changes in technology and regulatory policies, the Commission recognized that the introduction of competition was possible and would provide benefits, "including the fostering of different technological approaches, diversity of service options and some degree of price competition which would not otherwise be present."[31] The Commission's decision in the context of the cellular service has been successful, and it should adopt a similar approach to allow competition in the lower L-band.

Allowing additional applicants to file for operation in the lower L-band would serve the public interest for several reasons. AMSC's application and system are based on technology which is now nearly a decade old, and the

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[28] Aeronautical Radio, Inc. v. FCC, 928 F.2d 428, 452 (D.C. Cir. 1991).

[29] See id.

[30] An Inquiry into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems, 86 FCC 2d 469, 474 (1981).

[31] Id.

Commission concedes that AMSC's system is incapable of sharing spectrum with any other system. NPRM, ¶ 9. The Commission has identified no improvements in AMSC's service offerings which would lead to efficient use of the lower L-band for the delivery of MSS and justify award of an additional 38 MHz of spectrum to AMSC's authorization.

At the same time, other spectrum available for MSS is scarce. For example, there are three licensees and three applicants to provide MSS Above 1 GHz service, and all MSS Above 1 GHz licensees would be required to share just 33 MHz of spectrum. Given the shortage of spectrum for MSS and the advancements in satellite technology since the Commission adopted the consortium requirement in the upper L-band, it makes little sense to continue to assign large blocks of spectrum on a monopoly basis, particularly to AMSC's antiquated system.

In refusing to accept additional applications for the lower L-band the Commission would also violate its policy of not dictating the design or business plan of satellite systems.[32] In the NPRM, the Commission has proposed policies based on the assumption that there is not enough spectrum in the L-band to sustain another system in addition to AMSC. NPRM, ¶ 11. In effect, the Commission has decided *sua sponte* that there are no satellite designs which could make use of the L-band either globally or regionally despite the presence of

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[32] See Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2485.5-2500 MHz Frequency Bands, 9 FCC Rcd 1094, 1100 (1994); Domestic Fixed-Satellite Service, 88 FCC 2d 318, 338 (1981).

AMSC. While the lower L-band may ultimately not be appropriate for award of additional licenses, the Commission should not grant AMSC monopoly status without allowing interested applicants an opportunity to apply.[33]

The Commission's proposal to reserve the frequencies solely for AMSC also has the detrimental effect on U.S. spectrum resources of ceding international use of the lower L-band to other administrations. The allocation for Maritime Mobile-Satellite Service (MMSS) in the lower L-band is global, not merely over North America.[34] AMSC, of course, cannot use the spectrum globally, while other geostationary or nongeostationary applicants potentially could use this spectrum on a worldwide basis. Cf. NPRM, ¶ 12 (AMSC "can serve areas of the country that are too remote or sparsely populated to be served by terrestrial land mobile systems"). If the United States is to participate in the global MMSS market, then the Commission should accept applications for additional systems to use the lower L-band.

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[33] Congress specified two public interest factors when it gave the Commission authority to auction licenses, that is: "recovery for the public of a portion of the value of the public spectrum resource made available for commercial use and avoidance of unjust enrichment through the methods employed to award uses of that resource." 47 U.S.C. § 309(j)(3)(C). LQL generally opposes the use of auctions to award satellite service licenses. Moreover, the use of auctions for spectrum allocated for satellite services on a global basis, such as the lower L-band, is inappropriate. But, the Congressional policy set forth in Section 309 suggests that the Commission should consider accepting applications from entities which may place value on the use of the lower L-band spectrum even within the restrictions articulated in the NPRM.

[34] See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum for Mobile-Satellite Service in the 1530-1544 MHz and 1626.5-1645.5 MHz Bands, 8 FCC Rcd 4246, 4252-53 (1993) ("Lower L-band Allocation Order").

II. THE COMMISSION CANNOT LAWFULLY MODIFY AMSC'S AUTHORIZATION IN THIS PROCEEDING.

The proposal to modify AMSC's authorization cannot be squared with the Commission's prior statements on developing rules for use of the lower L-band. In 1990, the Commission imposed a freeze on accepting applications for the lower L-band pending finalization of allocation proposals and rules and policies for the service.[35] In that order, the Commission made two specific pronouncements regarding the acceptance of applications for operation in the lower L-bands. It stated that "we do not intend to accept applications for a permanent MSS satellite system to use this band . . . until the allocation proposals contained herein are finalized."[36] It also stated:

> We are proposing only a general allocation at this time. Specific technical standards, rules, and regulations will be determined in future proceedings. Our immediate proposal allows for maximum flexibility in determining the specific mobile-satellite system(s) that may ultimately be authorized to use this spectrum. We will not solicit applications to operate the service until rules and policies are finalized.[37]

Thus, the Commission originally specified two events which would have to occur before applications would be accepted to use the lower L-bands: adoption of the allocation proposals and finalization of rules and policies for the service.

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[35] See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum for Mobile-Satellite Service in the 1530-1544 MHz and 1626.5-1645.5 MHz Bands, 5 FCC Rcd 1255, 1259 & 1262 n.23 (1990) ("Lower L-band Notice").

[36] Id. at 1262 n.23.

[37] Id. at 1259 (emphasis supplied).

Subsequently, the Commission issued an order adopting the allocation proposed in the Lower L-band Notice and proposing a supplemental allocation for the service on June 11, 1993.[38] The Commission did not, however propose "rules and policies" regarding operation within the bands. Nor did the Commission "solicit" applications, or give any indication that applications for the service would be entertained. In fact, the Commission indicated to the contrary -- in the context of an application submitted by AMSC to amend its existing authorization to add the lower L- bands.[39] In this order, released on June 14, 1993, the Commission dismissed AMSC's request, and stated that any application of AMSC to use the lower L-bands would be considered "when the Commission determines licensing policies for the MMSS bands."[40] The Commission re-stated that it would not accept applications for the lower L-bands "until the allocation proposals for the bands are finalized."[41] Since that order, the Commission has never acted to lift the freeze, nor did it propose, much less finalize, "rules and policies" for the service (until release of the NPRM), nor did it solicit applications for the service, as it had previously indicated.

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[38] See Lower L-band Allocation Order, 8 FCC Rcd at 4246.

[39] AMSC Subsidiary Corporation, 8 FCC Rcd 4040, 4046-48 (1993).

[40] Id. at 4048.

[41] Id. at 4047 (footnote omitted).

AMSC filed another application to add the lower L-band frequencies to its existing authorization on July 12, 1993.[42] This application was placed on Public Notice as accepted for filing on November 3, 1993.[43] Given the Commission's own statements of conditions precedent to accepting applications for use of the lower L-bands, the conditions for accepting applications for the lower L-bands had not yet been met. Accordingly, AMSC's July 1993 application was filed during the existence of a freeze and should not have been accepted for filing.

In the NPRM, the Commission states that it was proper to accept AMSC's application on November 3, 1993, because AMSC filed its application after the Commission had finalized the allocation proposed in the Lower L-band Notice. NPRM, ¶ 19. This explanation ignores the fact that the Commission had also said that it did not intend to "solicit" applications until it had finalized the rules and policies for operation in the service. The Commission has not explained why AMSC's application should be treated differently from those of other potential applicants which took the Commission's statements at face value.

The Commission now proposes to modify AMSC's existing authorization for operation in the lower L-bands pursuant to Section 316 of the Communications Act of 1934, as amended. NPRM, ¶¶ 17, 19. However, Section 316 does not apply in this situation. To grant a Title III license, or modification thereof, Section 308 of the Act explicitly requires action on a written application: "The Commission

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[42] File No. 59-DSS-MP/ML-93.

[43] Report No. DS-1365 (released Nov. 3, 1993).

may grant construction permits and station licenses, or modifications or renewals thereof, only upon written application therefore received by it" except in cases of emergency.[44] Section 316 creates an exception to Section 308 when the Commission takes action which has the effect of modifying an existing "unconditional right" in a license.[45] AMSC's authorization does not encompass an unconditional right to operate in the lower L-band, and so, Section 316 is inapplicable. The Commission is therefore not "modifying" AMSC's existing authorization, and, cannot use Section 316 to bootstrap AMSC's premature application.[46]

The Commission also suggests that whether AMSC's application has been accepted for filing is irrelevant because it is proposing not to accept applications for operation in the lower L-band. NPRM, ¶ 19. However, as outlined above, LQL believes that the Commission has erroneously decided not to accept competing applications for operation in the lower L-band. Accordingly, the Commission should set a date certain for filing applications for operation in the lower L-band to which AMSC and others interested in using the lower L- band may respond.

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[44] 47 U.S.C. § 308(a) (emphasis supplied).

[45] See P&R Temmer v. FCC, 743 F.2d 918, 926-28 (D.C. Cir. 1984) ("a license is modified for purposes of Section 316 when an unconditional right conferred by the license is substantially affected"); Music Broadcasting Co. v. FCC, 217 F.2d 339, 342 (D.C. Cir. 1954). In Temmer, the Commission took the position that the licenses at issue had not been modified because the changes were the result of the licensee's failure to fulfill a condition in the license.

[46] The Commission should not use Section 316 in this situation and should require AMSC to demonstrate the applicable technical, legal and financial qualifications to be a licensee of the lower L-band pursuant to Section 309.

III. ANY GRANT OF AUTHORITY TO OPERATE IN THE LOWER L-BAND MUST BE CONDITIONED ON NOT CAUSING HARMFUL INTERFERENCE TO THE OPERATION OF GLOBALSTAR.

Last year, the Commission granted interim authority to AMSC and Rockwell International Corporation to operate mobile earth terminals (METs) in the lower L-band using AMSC's MSS system.[47] LQP filed Petitions for Partial Reconsideration of both the AMSC and Rockwell orders requesting that the AMSC and Rockwell be required to operate on a non-interference basis in the lower L-band with respect to the Globalstar™ system and that they be required to cease using all METs which did not comply with the priority and preemption requirements in Footnote US315 when a permanent licensee commences operation in the band.[48]

In response to AMSC's opposition, LQP filed an interference analysis which demonstrated that operation of AMSC's METs in the lower L-band has the potential to produce both out-of-band and in-band interference to Globalstar™ service uplinks in the 1610-1626.5 MHz band. See Attachment A hereto. After subsequent discussions with AMSC and Rockwell, LQP filed another interference analysis which stated that out-of-band interference would be sufficiently mitigated

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[47] AMSC Subsidiary Corporation, 10 FCC Rcd 10458 (Int'l Bur. 1995); Rockwell International Corporation, 10 FCC Rcd 10952 (Int'l Bur. 1995).

[48] See Petition for Partial Reconsideration (AMSC), File No. 681-DES-MP/L-95 (Aug. 31, 1995); Petition for Partial Reconsideration (Rockwell), File No. 1051-DSE-MP/L-95 (Oct. 10, 1995). In the NPRM, the Commission has proposed to sanction AMSC's and Rockwell's non-compliant METs. NPRM, ¶¶ 25-27.

as long as AMSC and Rockwell did not operate below 1631.5 MHz and used the emissions mask outlined in Rockwell's opposition to the Petition. See Attachment B hereto. However, there would be a potential for in-band interference depending upon the frequency assignment scheme used by AMSC and Rockwell for operation in the lower L-band. See id. These petitions remain pending.

Given this potential for interference, LQL objects to the Commission's proposals on two additional grounds. First, Section 316 is not a proper basis for "notice" to LQL of modification to AMSC's authority. Section 308 of the Communications Act of 1934 requires that any modification of a Title III license be based on a "written application."[49] AMSC's lower L-band application is three years old, has not been properly accepted for filing, and may have been superseded by technical parameters outlined in the Commission's orders granting interim authority to AMSC and Rockwell for operation in the lower L-band. Accordingly, the Commission cannot require LQL to file an objection to the proposed modification based on the "notice" in the NPRM and should require AMSC to file a written and up-to-date application.[50]

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[49] 47 U.S.C. § 308(a).

[50] A written application may indicate whether AMSC would not operate below 1631.5 MHz, and may explain its frequency assignment plan. Other information may be critical to the interference analysis. For example, AMSC recently noted that its MSS system does not have position location capability. See Comments of AMSC Subsidiary Corporation in CC Docket No. 94-102, at 8 (filed Mar. 4, 1996). Accordingly, it may be difficult to devise a procedure to coordinate the Globalstar™ system with AMSC if Section 25.202(f) of the Commission's Rules were applicable. See 47 C.F.R. § 25.202(f).

Second, as indicated in the attached interference analyses, there remains a potential for harmful interference into the Globalstar™ system as a result of AMSC's, or potentially other systems', lower L-band operations based on current information. However, because Globalstar's operations in the MSS Above 1 GHz band have rights of precedence over operation of AMSC in the lower L-band, any authorization issued for operation in the lower L-band must be conditioned on not causing harmful interference to Globalstar.

Such protection of Globalstar's L-band service links is mandated by the Commission's long-standing principle of "first in time, first in right" with respect to assignment of interference protection rights.[51] Any license granted for operation in the lower L-band would be granted after the filing and grant of the Globalstar™ application to use the 1610-1626.5 MHz band.[52] Therefore, it would be contrary to the Commission's basic principles of interference management to

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[51] See Report on Preparation for ITU World Radiocommunication Conferences, 10 FCC Rcd 12783, 12803 (1995) ("all proposed allocations are subject to the fundamental principle that all existing co-primary spectrum users are protected from harmful interference that may be caused by later-in-time co-primary users"); In re Amendment of Parts 21 and 74 (MDS and ITFS Filing Procedures), 1 CR 1, ¶ 41 (1995) ("Among coequal services, we have traditionally used the 'first in time, first in right' approach for appropriating interference protection rights"); Midnight Sun Broadcasting Co., 3 RR 1751 (1947) (proposed station must protect operation of previously-licensed station).

[52] The Globalstar™ application was initially filed on June 3, 1991. Assuming that AMSC's lower L-band application is acceptable for filing, it was not filed until two years later in July 1993. Moreover, the authorization for Globalstar service links was issued on January 31, 1995. See Loral/QUALCOMM Partnership, L.P., 10 FCC Rcd 2333 (Int'l Bur. 1995). AMSC has not yet been granted unconditional authority to operate in the lower L-band.

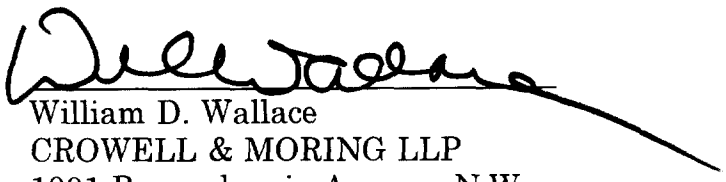
permit operations by AMSC, or any other U.S. licensee, in the lower L-band, to impose interference on the authorized Globalstar™ system. Accordingly, LQL objects to any license being issued for operation in the lower L-band unless it is specifically conditioned on not causing interference to the Globalstar™ system.

IV. CONCLUSION

For the reasons set forth above, LQL recommends that the Commission adopt a rule opening eligibility for the lower L-band to multiple applicants, and that AMSC be required to file a new application for operation in the lower L-band to be considered in the same processing group if it chooses to file.

Respectfully submitted,

L/Q LICENSEE, INC.

By: 

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ATTACHMENT A

Sept. 25, 1995

Effect on Globalstar of AMSC operation in the 1626.5-1645.5 MHz band

1. Introduction

Operation of AMSC mobile terminals in the lower L-band will cause degradation of Globalstar service operating in the 1610-1626.5 MHz band, even if the AMSC terminals meet the emissions limitations specified in Section 25.202 (f). There are two ways in which AMSC terminals cause interference to the Globalstar system:
(1) Out-of-band emissions from AMSC terminals effectively increase the noise level in a Globalstar channel; and
(2) AMSC carriers in a Globalstar L-band beam, partially suppressed by Globalstar satellite filtering, after upconversion appear as in-band interferers in the feederlink sub-band corresponding to an adjacent L-band beam.

2. Interference analysis

2.1 Out-of-band emissions from AMSC terminals

The interference analysis is given in Attachment 1. The analysis is based on the standard ITU methodology of allowing the AMSC emissions to cause an increase in total noise power density, at the Globalstar satellite, of no more than 6%. The relevant Globalstar satellite parameters are given in the attachment. Although the analysis is shown only for an AMSC terminal located at 50 degrees elevation with respect to the Globalstar satellite, the iso-flux gain compensation in the satellite antennas makes the numbers approximately applicable for all other locations of AMSC terminals within the Globalstar beam. Assuming that the terminals are scattered through the beam, an average cross polarization isolation of 6 dB between the AMSC emissions and the Globalstar antenna can be used.

The analysis shows that for the Globalstar satellite's uppermost FDM channel (center frequency of 1625.8 MHz), any more than 141 AMSC terminals transmitting simultaneously in one L-band beam would cause unacceptable interference. If the cross-polarization isolation is higher than 6 dB, more than 141 AMSC terminals in one beam would cause the same interference. Given that a Globalstar beam can typically cover 300000 to 500000 sq. nmi on the Earth's surface, the probability of hundreds of AMSC terminals being in one beam is high.

A Globalstar satellite may use its uppermost FDM channel either because no TDMA systems ultimately deploy within the US, or because it is serving Mexico or Canada and parts of the beam overlap the US. Globalstar is licensed to construct a system that is capable of operating over the full 1610-1626.5 MHz band. If the analysis is performed for a Globalstar satellite using lower frequencies, below 1621.35 MHz, the AMSC out-of-band emissions may be down by another 10 dB, which would simply mean that 1410